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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,375	02/23/2005	Robert Wuest	016915-0278	5186
22428 7590 12/11/2007 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER YOO, REGINA M	
			ART UNIT 1797	PAPER NUMBER
			MAIL DATE 12/11/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/525,375	Applicant(s) WUEST, ROBERT	
	Examiner Regina Yoo	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 11-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/14/07</u> . | 6) <input type="checkbox"/> Other: _____ |

FINAL ACTION

Response to Amendment

The amendment filed on 9/14/2007 has been received and claims 1-14 are pending.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1 and 5-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the limitation of "volatile active ingredient" is not fully supported by the disclosure in the Specification which provides a description of "volatile deodorizing agents" in [0029], where it is not clear whether the volatile active ingredient of claim 1 is a deodorizing agent. In addition, there is no written description support for the limitation of "air from natural wind" in the Specification.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 5-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox (4511552) in view of Palinczar (4339550) and Hoyt (5304358).

As to Claim 1, Cox ('552) discloses a method for deodorizing large-scale plants where a malodorous solid or liquid material is stored open-air and treating unpurified air above the surface of the malodorous material with volatile active agents that react with or mask the malodorous substances that the unpurified air contains by releasing the volatile active agent slowly over an extended period of time (see entire document, particularly Col. 1 lines 8-11 and Col. 5 lines 27-46) wherein the air freshening/deodorizing device is located above the surface of the malodorous material or at the edge of the large-scale plant and a stream of air from natural wind flows over the air freshening composition/device to release the volatile active agents (see entire document, particularly Col. 7 lines 55-59).

Cox ('552) does not appear to specifically teach that the volatile active agents are dispersed in a matrix of a crosslinked polymer comprising hydrophilic groups nor that the spongelike composition is incorporated between two parallel boards open on all sides where a stream of air from natural wind flows between the parallel boards and over the spongelike composition.

As to the limitation that the volatile active agents are dispersed in a matrix of a crosslinked polymer comprising hydrophilic groups, Palinczar ('550) discloses a method of deodorizing comprising: treating unpurified air with volatile active agents, wherein the

volatile active agents are dispersed in a matrix of a crosslinked polymer comprising hydrophilic groups and form, with this, a spongelike composition in order to react with or mask the malodorous substances that the unpurified air contains by releasing from the spongelike composition the volatile active agents over a period of time (see entire document, particularly Abstract, Col. 2 lines 3-35, Col. 3 lines 4-19 and Col. 6 lines 44-51).

It would have been obvious to one of ordinary skill in this art at the time of invention to provide the volatile active agent in a spongelike composition that is a matrix of a crosslinked polymer comprising hydrophilic groups, as an alternate means to incorporate volatile active agents into an air freshening/deodorizing device, in the method of Cox in order to impregnate then to release volatile active agents that will mask malodors as shown by Palinczar.

As to the limitation that the spongelike composition is incorporated between two parallel boards open on all sides, it was well known in the art at the time of invention to incorporate a fragrance impregnated material in between two parallel boards that are open on all sides.

Hoyt ('358) exemplifies a air freshener (10) wherein a fragrance carrying member (25) is retained between two parallel boards (11, 12) that is open on all sides via the peripheral vents where a stream of natural wind flows between the parallel boards and over the fragrance-carrying member via the passageways (see entire document,

particularly Figures 1-8, Col. 1 lines 61-64 and Col. 4 lines 3-20) in order to retain a fragrance-carrying member to release the volatile active agent to the environment.

It would have been obvious to one of ordinary skill in this art at the time of invention to provide a structure in the form of two parallel boards with the spongelike composition of Palinczar in order to retain and release a volatile active agent such as a fragrance from a fragrance-carrying member such as the spongelike composition to the environment without damaging the fragrance-carrying member or other objects in the environment as exemplified by Hoyt.

As to Claim 5, while both Cox ('552) and Palinczar ('550) disclose that the volatile active agents are released slowly and uniformly over a period of time, neither Cox ('552) nor Palinczar ('550) appears to specifically teach that the volatile active agent is released over a period of at least three days. However, as Cox ('552) discloses that the release of the volatile active agent occurs over an extended period of time (see Abstract) and as Palinczar ('550) also discloses that the objectives of the invention is for "express purpose of sustained release of the volatile materials form the foam" and use "a wide range of "control release ingredients", ...[to] aid in producing a sustained release effect" (see Col. 2 lines 3-25), it would have been obvious to one of ordinary skill in the art to that an extended period will include at least three days and it would have been also obvious to one of ordinary skill in the art to adjust and modify the composition or the pore size of the foam product of Palinczar in order to achieve a

sustained release of the volatile active agent in order to mask the malodor for a desired time period such as at least for three days.

As to Claims 6-7, Palinczar ('550) discloses that the volatile active agents such as natural lemon oil and peppermint oil and menthol (see entire document, particularly Col. 7 lines 27, 41 and 54 and Col. 8 line 29) are present in amounts of 10 to 90% by weight of the spongelike composition (see entire document, particularly Col. 6 lines 6-10).

As to Claim 8, Palinczar ('550) discloses that the spongelike composition contains at least 0.1% weight, preferably 1 to 8% by weight, of water (see entire document, particularly Col. 6 lines 27-31).

As to Claim 10, while Cox ('552) discloses that a number of deodorizing devices are distributed in the large-scale plant or arranged around its edge (see Col. 7 lines 52-53), neither Cox ('552) nor Palinczar ('550) or Hoyt ('358) discloses that a number of parallel boards are provided. However, it would have been obvious to one of ordinary skill in the art to provide multiple air freshener/deodorizer as shown by Cox but in the form of parallel boards in the plant in order to ensure that adequate amount of the volatile active agents is present for complete masking of the malodor by providing a multiple freshener/deodorizer as disclosed by Cox.

Thus, Claims 1, 5-8 and 10 would have been obvious within the meaning of 35 U.S.C. 103(a) over the combined teachings of Cox ('552), Palinczar ('550) and Hoyt ('358).

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cox (4511552) in view of Palinczar (4339550) and Hoyt (5304358) as applied to claim 1 above, and further in view of Colon (5460787).

Cox ('552), Palinczar ('550) and Hoyt ('358) are relied upon for disclosure described in the rejection of claim 1 under 35 U.S.C. 103(a).

While Hoyt ('358) discloses that lattices (formed by projections 26, 31) are incorporated between the parallel boards (11 and 12) in order to retain the scented carrier within that is in the form of a board/strip (see entire document, particularly Figure 8, Col. 3, lines 54-57 and Col. 4, lines 17-20), neither Cox ('552) nor Palinczar ('550) or Hoyt ('358) appears to specifically teach that the spongelike composition is in the form of boards or strips with the width dimension of 0.2 to 5 cm.

It was known in the art at the time of invention to provide a fragrance-carrying member in the form of a board of various width including boards with width between 0.2-5 cm. Colon ('787) discloses that the a board impregnated with at least one fragrance has a width from 1.5 - 2.5 inches (3.81 - 6.35 cm) in order to fit within the holder for the scented board (see entire document, particularly Col. 9, lines 10-15).

It would have been obvious to one of ordinary skill in this art at the time of invention to provide the board of the above dimension between the parallel boards in

the method of Cox as modified by Palinczar and Hoyt in order that the volatile active agent carrier is sized correctly to fit within the holder as shown by Colon.

Thus, Claim 2 would have been obvious within the meaning of 35 U.S.C. 103(a) over the combined teachings of Cox ('552), Palinczar ('550), Hoyt ('358) and Colon ('787).

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cox (4511552) in view of Palinczar (4339550) and Hoyt (5304358) as applied to claim 1 above, and further in view of Shah (WO 2001/78794).

Cox ('552), Palinczar ('550) and Hoyt ('358) are relied upon for disclosure described in the rejection of claim 1 under 35 U.S.C. 103(a).

While Palinczar ('550) discloses that a matrix of a crosslinked polymer is used as a substrate for fragrance impregnation, Palinczar ('550) does not appear to specifically teach that the substrate in the form of a crosslinked polymer comprises a condensation product of a maleinized or epoxidized polymer and a polyamine as the crosslinking agent.

It was well known in the art at the time of invention to also produce a matrix of a crosslinked polymer from a condensation product of a maleinized polymer and a polyamine as the crosslinker as a substrate for a volatile active agent impregnation. Shah ('794) exemplifies that the element in which the active agent is dispersed in is a matrix of a crosslinked polymer wherein the crosslinked polymer is a condensation product of a maleinized polymer (see entire document, particularly Abstract and page 4,

lines 2-21) and a polyamine as the crosslinking agent (see entire document, particularly page 4, lines 22-37 through page 5, lines 1-7) in order to retain then release active agents that perfume or deodorize air over a period of time (see Abstract).

It would have been obvious to one of ordinary skill in this art at the time of invention to provide a matrix of a crosslinked polymer produced from a maleinized polymer and a polyamine crosslinker as an alternate substrate/carrier means in the method of Cox as modified by Palinczar and Hoyt in order to deodorize air by emission of volatile active agents from such substrate as exemplified by Shah.

Thus, Claim 3 would have been obvious within the meaning of 35 U.S.C. 103(a) over the combined teachings of Cox ('552), Palinczar ('550), Hoyt ('358) and Shah ('794).

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cox (4511552) in view of Palinczar (4339550) and Hoyt (5304358) as applied to claim 1 above, and further in view of Shepherd (3567118).

Cox ('552), Palinczar ('550) and Hoyt ('358) are relied upon for disclosure described in the rejection of claim 1 under 35 U.S.C. 103(a).

While Cox ('552), Palinczar ('550) and Hoyt ('358) disclose that active agents are impregnated on a carrier medium, neither Cox ('552) nor Palinczar ('550) or Hoyt ('358) appears to specifically teach that the crosslinked polymer is a copolymer of a monofunctional (meth)acrylic monomer and a polyfunctional (meth)acrylic monomer as the crosslinking agent.

It was known in the art at the time of invention to utilize a copolymer of a monofunctional (meth)acrylic monomer and a polyfunctional (meth)acrylic monomer as the crosslinker in manufacture of a matrix of a crosslinked polymer for use as a substrate/carrier for deodorization purposes. Shepherd ('118) discloses that a matrix containing the active agent is produced from a crosslinked polymer wherein in the crosslinked polymer is a copolymer of a monofunctional (meth)acrylic monomer (see entire document, particularly Col. 1, lines 62-73) and a polyfunctional (meth)acrylic monomer as the crosslinking agent (see entire document, particularly Col. 2, lines 3-9) and applied to a substrate in order to improve impregnation by the fragrance and to prolong entrapment of the fragrance by the substrate (see entire document, particularly Col. 1, lines 30-34 and Col. 2, line 63).

It would have been obvious to one of ordinary skill in this art at the time of invention to provide such components in the method of Cox as modified by Palinczar and Hoyt as an alternate ingredient/composition of the matrix of crosslinked polymer that forms the substrate/carrier in order to entrap and prolong release of active agents as shown by Shepherd.

Thus, Claim 4 would have been obvious within the meaning of 35 U.S.C. 103(a) over the combined teachings of Cox ('552), Palinczar ('550), Hoyt ('358) and Shepherd ('118).

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cox (4511552) in view of Palinczar (4339550) and Hoyt (5304358) as applied to claim 1 above, and further in view of Welch (20030024997).

Cox ('552), Palinczar ('550) and Hoyt ('358) are relied upon for disclosure described in the rejection of claim 1 under 35 U.S.C. 103(a).

While Cox ('552), Palinczar ('550) and Hoyt ('358) disclose that active agents are released over an extended period of time, neither Cox ('552) nor Palinczar ('550) or Hoyt ('358) appears to specifically teach that the active agents are slowly and uniformly released from the carrier over a period of at least three days.

It was known in the art at the time of invention to provide a method of fragrance release over at least three days. Welch ('997) discloses that the active agents are released slowly and uniformly from the spongelike composition over a period of at least three days in order to provided a sustained perfume release rate (see entire document, particularly page 25, paragraph [0220]).

It would have been obvious to one of ordinary skill in this art at the time of invention to provide the release rate of at least 3 days from the substrate/spongelike composition in the method of Cox as modified by Palinczar and Hoyt in order to apply the active agent to freshen and deodorize the targeted area for an extended duration of at least three days as shown by Welch.

Thus, Claim 5 would have been obvious within the meaning of 35 U.S.C. 103(a) over the combined teachings of Cox ('552), Palinczar ('550), Hoyt ('358) and Welch ('997).

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cox (4511552) in view of Palinczar (4339550) and Hoyt (5304358) as applied to claim 1 above, and further in view of Johnson (5071645).

Cox ('552), Palinczar ('550) and Hoyt ('358) are relied upon for disclosure described in the rejection of claim 1 under 35 U.S.C. 103(a).

While Cox ('552), Palinczar ('550) and Hoyt ('358) disclose the method of using matrices/compositions for air freshening purposes, neither Cox ('552), Palinczar ('550) nor Hoyt ('358) appears to specifically teach that these matrices contains additionally flame retardants, sublimation assistants and/or powder.

It was known in the art at the time of invention to provide additional components such as a flame retardant in the spongelike matrix used as a substrate/carrier for fragrance/deodorizer impregnation. Johnson ('645) discloses an active agent delivery device in which a microporous material (see entire document, particularly Col. 1, lines 41-44) is impregnated with a releasable active agents such as fragrances (see entire document, particularly Col. 1, lines 67-68) along with flame retardant (see entire document, particularly Col. 4, lines 54-55) in order to avoid ignition of the substrate/carrier (i.e. the microporous material) during use.

It would have been obvious to one of ordinary skill in this art at the time of invention to provide a flame retardant in the method of Cox as modified by Palinczar and Hoyt in order to ensure that the substrate/carrier will not ignite so that it will not be a source of fire hazard during the deodorization process as shown by Johnson.

Thus, Claim 9 would have been obvious within the meaning of 35 U.S.C. 103(a) over the combined teachings of Cox ('552), Palinczar ('550), Hoyt ('358) and Johnson ('645).

Response to Arguments

10. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's arguments filed 9/14/2007 have been fully considered but they are not persuasive.

In response to applicant's argument that the reference of Hoyt does not disclose/provide two parallel boards that are open on all sides since the "cavity containing the scented carrier is completely enclosed except for vent passageways", Examiner would disagree and point out that the peripheral vents and passageways provide opening for the substrate/carrier within the device between the two parallel boards on all four sides as well as the top and bottom of the substrate/carrier (except for the spots that are gripped by the device for retention within the device) as shown in Figures 1-7.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina Yoo whose telephone number is 571-272-6690. The examiner can normally be reached on Monday-Friday, 9:30 am - 6:30 pm.

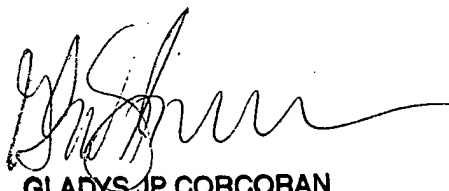
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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RY



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